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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,678	01/18/2002	James W. Moore	5557.P007	5448

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EXAMINER

TRAIL, ALLYSON NEEL

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,678

Applicant(s)

MOORE ET AL.

Examiner

Allyson N Trail

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-28 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-9, 14, 16, 17, 29, 30, 32-37, 42, 44 and 45 is/are rejected.
- 7) ☒ Claim(s) 3, 10-13, 15, 31, 38-41, and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *interview summary*.

DETAILED ACTION

Interview

1. A telephone interview with attorney Todd Becker was conducted January 19, 2004. As a result of the interview, the final rejection issued has been withdrawn and a new non-final rejection is being issued.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 2, 4, 14, 16, 17, 29, 30, 32, 42, 44, and 45 rejected under 35 U.S.C. 102(e) as being anticipated by Gerety et al (6,560,741).

Gerety et al teaches the following in regards to claims 1, 2, 17, 29, 30, and 45:

A method, comprising: receiving a trigger signal communicated from a triggering device in response to a location of a component in an automated identification system

(two-dimensional codes disclosed by Gerety et al are used on objects being by a reading device placed above a conveyer belt on which the part or parcel is moving. Col. 2, lines 26-36); capturing multiple images of at least a portion of a surface of the component in response to the trigger signal, the multiple images comprising a series of images including a first image and at least one subsequent image; and processing the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images.

"Yet another technique known in the art suitable for capturing a two-dimensional image of a two-dimensional printed code comprises capturing multiple images of the two-dimensional image of a two-dimensional printed code using a two-dimensional image sensor, wherein each of the images thus captured represents only a portion of the two-dimensional printed code, and "stitching" the multiple images together into a single image representative of the entire two-dimensional printed code. This can be accomplished by sweeping the two-dimensional printed code past a two-dimensional image sensor incapable of capturing the entire two-dimensional printed code in a single image. Multiple overlapping "snapshot" images are captured via the two-dimensional image sensor as the two-dimensional printed code is swept by. The image-to-image overlap (boundary correlation) is analyzed in software and the images of "fused" to produce a single, coherent image. This technique has been employed previously with "hand scanner" devices such as the "Logitech ScanMan." (Col. 12, line 66 – Col. 13, line 17).

Gerety et al teaches the following in regards to claims 4, 16, 32, and 44:

A coupled display 430 figure 10, to enable generation of a visual rendering of the first image or the at least one subsequent image on the display.

Gerety et al teaches the following in regards to claims 14 and 42:

See Gerety et al's teachings in regards to claim 1. Additionally, Gerety et al teaches a memory 520 figure 12, coupled to the image sensor 540, to store the multiple images; a processor 510, coupled to the memory, to process the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images; and an input/output interface 580, coupled to the processor, to receive the trigger signal.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-9 and 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerety et al (6,560,741) in view of Moed et al (5,770,841).

Gerety et al's teachings are discussed above.

Gerety et al fails to teach the following: a user-specified delay with a defined duration preceding capturing the first image, capturing each successive image in the series of images following a user-specified interval having a defined duration, the defined duration of the user-specified interval being equal to zero, and lastly, the

defined duration of the user-specified interval corresponding to each successive image in the series of images being identical.

Moed et al teaching the following in regards to claims 5 and 33:

A user-specified delay precedes capturing the first image, the user-specified delay having a defined duration.

"The packages are separated by a device known as a singulator. A suitable singulator is described in U.S. Pat. No. 5,372,238 to Bonnet, entitled 'Method and Apparatus for Singularizing Objects.'" (Col. 6, lines 16-19).

"The conveyor belt 18 includes a belt encoder 44 that is used to determine the speed and position the associated conveyor belt." (Col. 6, lines 20-22). Singulators separate packages and delay each package for reading until the preceding package has been read.

Moed et al teaches the following in regards to claims 6 and 34:

Capturing each successive image in the series of images follows a user-specified interval having a defined duration.

"The conveyor belt system is used to transport packages through a terminal facility. In the preferred system 10, the conveyor belt 18 is 16 inches wide and carries up to 3,600 packages per hour while moving at a rate of up to 100 feet per minute. The packages 20a-c vary in height and may be arbitrarily oriented on the conveyor belt 18. The conveyor belt 18 moves each package beneath the fiducial mark detector 24 and high resolution camera 16 in single file, and with some amount of space between them." (Col. 6, lines 8-16).

Moed et al teaches the following in regards to claims 7, 8, 34, and 36:

The defined duration of the user-specified interval equals zero or the duration corresponding to each successive image in the series of images is identical.

See Moed et al's teachings in regards to claim 6. Packages can flow at a constant speed.

Moed et al teaches the following in regards to claims 9 and 37:

The defined duration of the user-specified interval corresponding to each successive image in the series of images is distinct.

See Moed et al's teaching in regards to claim 5. The singulators separate packages and delay each package for reading until the preceding package has been read.

Although Gerety et al invention is geared towards a printed code for storing biometric information and reading the code using multiple images, Gerety et al's code and reading method can be used in any application, such as reading the code attached to an object moving along a conveyor belt. In view of Moed et al's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ the display and the user-specified intervals taught by Moed et al to the teachings of Gerety et al. One would be motivated to do so in order to eliminate the problem of packages traveling along a conveyor belt too quickly and not being able to be clearly decoded. Both the display and the user-specified intervals help to avoid this problem.

Allowable Subject Matter

6. Claims 3, 10-13, 15, 31, 38-41, and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's for allowance: Although Gerety et al and Moed et al in combination teach method of capturing multiple images of moving codes, the above identified prior art of record, taken alone, or in combination with any other prior art, fails to teach or fairly suggest the specific features of the present claimed invention, such as capturing at least one of the multiple images via an external camera including configuring the image system to receive an input from the external camera via switching to the external camera in response to user-specified criteria, the user-specified criteria including an image-capture-quantity and a time parameter, and capturing at least one of the multiple images via an external camera further including configuring the image system to receive an input from an internal image sensor via switching to the internal image sensor in response to the user-specified criteria. Moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

7. Claims 18-28 are allowed.

The following is an examiner's for allowance: Although Gerety et al and Moed et al in combination teach method of capturing multiple images of codes moving along a conveyer belt, the above identified prior art of record, taken alone, or in combination with any other prior art, fails to teach or fairly suggest the specific features of the present claimed invention. Specifically prior art fails to teach an article of manufacture

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comprising; a machine-readable medium that provides instructions, including instructions to: process a received trigger signal communicated from a triggering device in response to a location of a component in an automated identification system; capture multiple images of at least a portion of a surface of the component in response to the received trigger signal, the multiple images comprising a series of images including a first image and at least one subsequent image; store the multiple images in a memory; and process the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images. Moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.trail@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Allyson N. Trail
Patent Examiner
Art Unit 2876
February 10, 2004



KARL D. FRECH
PRIMARY EXAMINER